Remarks

The Examiners observations are well taken. The invention really consists of two aspects, namely a method of optimizing the characteristics of a silica film, wherein in accordance with the teachings of the invention, good results can be obtained by fixing the flow rates of the gases in advance, varying only the total deposition pressure, and observing the FTIR characteristics to determine the optimum deposition pressure. This aspect of the invention is premised on the discovery that, as evidenced by the figures, the total deposition pressure is what has the major impact on optical quality of the films. Claim 1 has been amended to reflect this aspect of the invention. It is believed that full support is found in particular on page 30 of the specification as filed. Please see also the paragraph at the foot of claim 31, which explains how the total deposition pressure is critical for the development of optimized films, and also page 32, lines 21-22.

Another aspect of the invention relates to the use of the results of the above optimization technique to make high quality optical films, namely wherein the flow rates are as specified and the total deposition pressure is about 2.4 Torr (see page 25, line 8). This aspect of the invention is reflected in claim 21.

It is believed that both claims 1 and 21 are fully supported by the specification as filed.

It is believed that these amendments overcome the Examiner's objections to the previous claims. Either the claim, e.g. claim 7, has been canceled or the offending language removed or amended. Claim 1 no longer specifies a substrate because in fact a series of different films are deposited on different substrates to find the optimum conditions. Reference in claim 1 to the substrate is believed to unnecessarily confuse the claim for the reasons noted by the Examiner. Clearly, on page 30 the films are not deposited on top of each other because it would not be possible to determine their FTIR spectra. In fact, a series of separate films are deposited, and the optimum conditions then found. It is believed that amended claim 1 clearly reflects this aspect of the invention.

The claim language, with regard to total deposition pressure, flow rate, film etc. has been made consistent throughout the claim set. It has also been made clear in claim 1 that the observed characteristics are the FTIR spectra.

It is believed that the above amendments address all the objections noted by the Examiner in the final action mailed June 13, 2005.

Reconsideration and allowance are respectfully requested.

Respectfully submitted,

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